

for providing a stable oil and emulsifier composition having a relatively large percentage of vegetable oil. One problem with producing foam which is effective for providing protection for a plant from injury caused by frost or freezing temperatures is the difficulty of providing a stable oil and emulsifier composition having a relatively large percentage of vegetable oil.

This is particularly true for compositions comprising crude, non-refined vegetable oils. Emulsifiers which have been found to be suitable are alkyl, aryl or glycol ethoxylate, propoxylate, butoxylate and sulfonate-based emulsifiers.

Please amend page 10, lines 19 – 21 as follows:

Foaming agents that have been found to be suitable are quaternary ammonium compounds, amine oxides, neutralized alkyl sulfates, neutralized alkyl and aryl sulfonates, hydrolyzed protein and alkyl and aryl oxyalkylates.

Please amend Claim 42 as follows:

42. (Twice Amended) A method of treating plants comprising the steps of:
- producing a pesticide consisting essentially of about 40% to about 90% by weight of vegetable oil and an emulsifier; and
  - placing the pesticide into water and applying the water and the pesticide to the surface of the plants.

### **RESPONSE**

The Applicant wishes to thank the Examiner for the telephonic conference call interview on May 2, 2003, concerning the subject Application. The participants of the interview were Donald V. Lightcap Jr. (Applicant), Mark F. Smith (attorney/Applicant), and Alton N. Pryor (Examiner). No exhibit or demonstration was conducted. The discussion was directed to

DVL-003PAT

-2-

the rejection of claims 25 – 27 under 35 U.S.C. 103(a) in view of JP '992 and in view of JP '097 or Blandiaus et al. and rejection of claims 35, 42- 44 under 35 U.S.C. 103(a) in view of Henriet et al. An agreement with respect to the claims was not reached. In view of the discussion, the specification and claim 42, have been amended as suggested by the Examiner to place them in better order for issuance.

**The rejection of claims 25 – 27 under 35 U.S.C. 103(a) in view of JP '992 as applied to claims 1 – 3, 7, 15 and 17 and in view of JP '097 of Blandiaus et al. is respectfully traversed.**

The Examiner takes the position that in a claim to a composition a statement of whether the composition is used as a detergent or as a plant protectant has no patentable significance. The Examiner further takes the position that crude vegetable oil taught by the prior art would read on crude vegetable oil in the instant claims.

The Applicants respectfully submit that the use of a vegetable oil for detergents does not teach the use of using crude vegetable oil for protecting plants from frost or freezing temperatures. While it is true that the intended use of the composition has no patentable significance, the intended use is significant in determining if one would be motivated to combine or modify the teachings of the cited references to arrive at the claimed invention.

As stated on page 9, lines 8 – 16:

"It should now be apparent to one skilled in the art that the use of crude, non-refined vegetable oil as a base component will be significantly less expensive than using refined or a purified vegetable oil. Further, crude vegetable oils, especially crude soya oil, contain tocopherol which is a natural antioxidant and functions as a preservative. This permits the foam producing composition to be stored for use without or with the use of significantly less additional preservatives. Crude vegetable oils

DVL-003PAT

-3-

also contain gums which improve the oil's stickability or adhesion characteristics thereby increasing the ability of the foam to cling to the plant's surfaces."

The Applicants respectfully submit that the cited references do not teach or render obvious the subject invention. It is well settled that **every limitation** in a claim must be taken into account. The essential limitation in claims 25 – 27 is the use of "crude" vegetable oil. The Applicants submit that the relatively smaller spectrum of molecules comprising refined or purified oils, as compared to non-refined or crude oils, permits refined oils to more easily form stable emulsions but, as stated above, do not have the benefits of a crude vegetable oil that are important for use in applying to the surfaces of plants. Additional support can be found in Edward G. Perkins, *Practical Handbook of Soybean Processing and Utilization*, edited by David R. Erickson, AOCS Press, Champaign, Illinois, United Soybean Board, St. Louis, Missouri, 1995, pp. 11, 18 – 19.

The Applicants further submits that the existence of gums in "crude" vegetable oils as well as the difficulty of forming water emulsions would indicate that such oils would not be preferable for detergent applications thereby tending to **teach away** from their use for such compositions. In this way, the cited references do not teach or render obvious the claimed composition and the Applicants are unable to find any motivation, teaching or suggestion of modifying or combining the cited references to arrive at the claimed composition of the subject application. Such motivation cannot come from the Applicant's own specification.

In view of the foregoing, the Applicants respectfully submit that the rejection of claims 25 – 27 as being unpatentable under 35 U.S.C. 103(a) in view of JP '992 as applied to claims 1 – 3, 7, 15 and 17 and in view of JP '097 of Blandiaus et al. should be withdrawn.

DVL-003PAT

-4-

**The rejection of claims 35, 42 – 44 under 35 U.S.C. 103(a) as being unpatentable over Henriet et al. is respectfully traversed.**

The Examiner takes the position that the use of the language “comprising” leaves the claims open to other pesticides.

The Applicants respectfully submits that claim 35 has been previously amended to recite a “pre-emulsion concentrate consisting essentially of about 40% to about 90% by weight of vegetable oil....” Claim 44 has been deleted. Claim 42 now recites: “producing a pesticide consisting essentially of about 40% to about 90% by weight of vegetable oil and an emulsifier....”

The Applicants again respectfully submits that Henriet comprises a pesticide, a vegetable oil solvent and an emulsifying surfactant. In contrast the vegetable oil in the subject application is the pesticide and claim 42 includes the step of producing a pesticide. Further, the vegetable oil of Henriet operates as a solvent for pesticide. Accordingly, the composition of Henriet is significantly different then the composition of the subject invention.

In view of the foregoing, the Applicants respectfully submit that the rejection of claims 35, 42 – 44 under 35 U.S.C. 103(a) as being unpatentable over Henriet et al. should be withdrawn.

**The rejection of claims 1 – 5, 7 – 13, 15 – 24 under 35 U.S.C. 112, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs is respectfully traversed.**

The Examiner takes the position that the specification should be amended to list the compounds that would be considered foaming agents and emulsifiers. In view of the Examiner's comments, the Applicants have amended the specification as suggested by the

DVL-003PAT

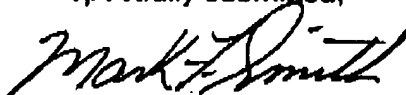
-5-

Examiner's comments, the Applicants have amended the specification as suggested by the Examiner.

In view of the foregoing, the rejection of claims 1 – 5, 7 – 13, 15 – 24 under 35 U.S.C. 112, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs should be withdrawn.

In view of the foregoing remarks, it is respectfully submitted that all of the Claims now pending are allowable over the art of record. Reconsideration of all claims now in this application is respectfully requested.

Respectfully submitted,



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DVL-003PAT

-6-